

REMARKS/ARGUMENTS

Claims 1 - 42 are currently pending with claims 17, 20, 21, and 25 having been amended and claims 33 - 42 having been added.

Claim 17 has been objected to for informal typographical issues. Claim 17 has been amended to address the Examiner's objection.

Claims 21 - 23 were objected to for informal typographical issues. Claim 21 has been amended to depend from claim 20 to address the Examiner's objection.

Claims 1, 3, 5, 6, 13, 14, 16, 17, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark (U.S. Patent No 5,993,053) in view of Hoisington et al. (U.S. Patent No. 4,814,786) [Hoisington] or Khijniak et al. (U.S. Patent No. 5,823,676) [Khijniak].

Applicants thank the Examiner for his consideration and allowance of claims 20 and 24 - 32.

Claims 2, 4, 7 - 12, 15, and 18 are objected to as being dependent upon a rejected base claim, but would allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Claims 20 and 25 have been amended to improve the flow of the claim language.

New claim 33 should be allowable as claim 33 includes the limitations of original claim 17 and original claim 18, which is allowed.

The Rejection Under 35 USC §103(a):

Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claim 1 over Clark and Hoisington, and over Clark and Khijniak as these combinations of references fail to show or suggest every limitation of claim 1. Specifically Clark and Hoisington, and Clark and Khijniak fail to show or suggest "a multi-zone-refrigeration unit having at least first and second zone temperature controllers, the first and second zone temperature controllers are capable of being set at different temperatures to establish a temperature gradient in a liquid," as recited in claim 1.

To elaborate, Clark, as understood, discusses a vessel having one or more heating elements that are settable to a temperature at which a toner will not boil. Nowhere does Clark

mention that the heating elements of the Clark vessel are configured to be set to different temperatures to establish a temperature gradient. The heating elements appear to be on/off elements. Not only does Clark fail to mention heating elements that may set to different temperatures to establish a temperature gradient, Clark also fails to suggest heater elements that may be set to different temperatures as the Clark vessel uses heater elements and the atmosphere surrounding the Clark vessel to establish a temperature gradient in the vessel to convectively mix the Clark toner. Specifically, the Clark vessel is reliant on heat leaving the vessel to the surrounding atmosphere (as indicated by arrow 30 in Clark's figures) to maintain a temperature gradient and maintain convective mixing. Therefore, Clarks fails to show or suggest "a multi-zone-refrigeration unit having at least first and second zone temperature controllers, the first and second zone temperature controllers are capable of being set at different temperatures to establish a temperature gradient in a liquid," as recited in claim 1. Therefore, Clark fails to render claim 1 obvious.

Neither Hoisington nor Khijniak makes up for the deficiencies of Clark. First, Hoisington, as understood, describes a vessel having a heating system that is similar to the heating system of the Clark vessel, in that the Hoisington vessel includes a heating element that may be heated to a temperature and uses the atmosphere surrounding the vessel to establish a temperature gradient. See Hoisington at Col. 4, lines 5 - 25. Nowhere does Hoisington mention a heating element that has "first and second zone temperature controllers" that are configured to be set at "different temperatures to thereby establish a temperature gradient" (as recited in claim 1) such that the temperature gradient is sufficient to cause natural thermal convection within a liquid to stir the liquid.

Further, Khijniak, as understood, describes a vessel having a heating system that is similar to the Clark vessel, in that Khijniak describes a vessel that includes a single heating element (that is a radiation source), and Khijniak does not show or suggest that the single heating element includes a first zone temperature controller and a second zone temperature controller that are configured to be set to "different temperatures to establish a temperature gradient in a liquid," as recited in claim 1.

Therefore, both Hoisington and Khijniak fail to make up for the deficiencies of Clark, and Clark and Hoisington, and Clark and Khijniak fail to render claim 1 obvious.

Claim 17 has been amended to include limitations similar to those of claim 1, and that are distinguished from Clark and Hoisington, and Clark and Khijniak above. Therefore, for at least the same reasons that Clark and Hoisington, and Clark and Khijniak fail to render claim 1 obvious, Clark and Hoisington, and Clark and Khijniak similarly fail to render claim 17 obvious.

Further, Clark also fails to show or suggest “a multi-zone-refrigeration unit having at least first and second zone temperature controllers,” as recited in claim 1. Clark, as understood, describes a vessel having heaters and not a refrigeration unit. See Clark at Col. 3, line 51, Col. 4, line 3 as well as numerous other locations. Therefore, for at least the reasons discussed above as well as these additional reasons, Clark fails to render claim 1 obvious.

Hoisington and Khijniak fail to make up for this deficiency of Clark, as Hoisington and Khijniak describe vessels having heaters and not a refrigeration unit. Therefore, for at least the reasons discussed above as well as these additional reasons, Clark and Hoisington, and Clark and Khijniak fail to render claim 1 obvious.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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